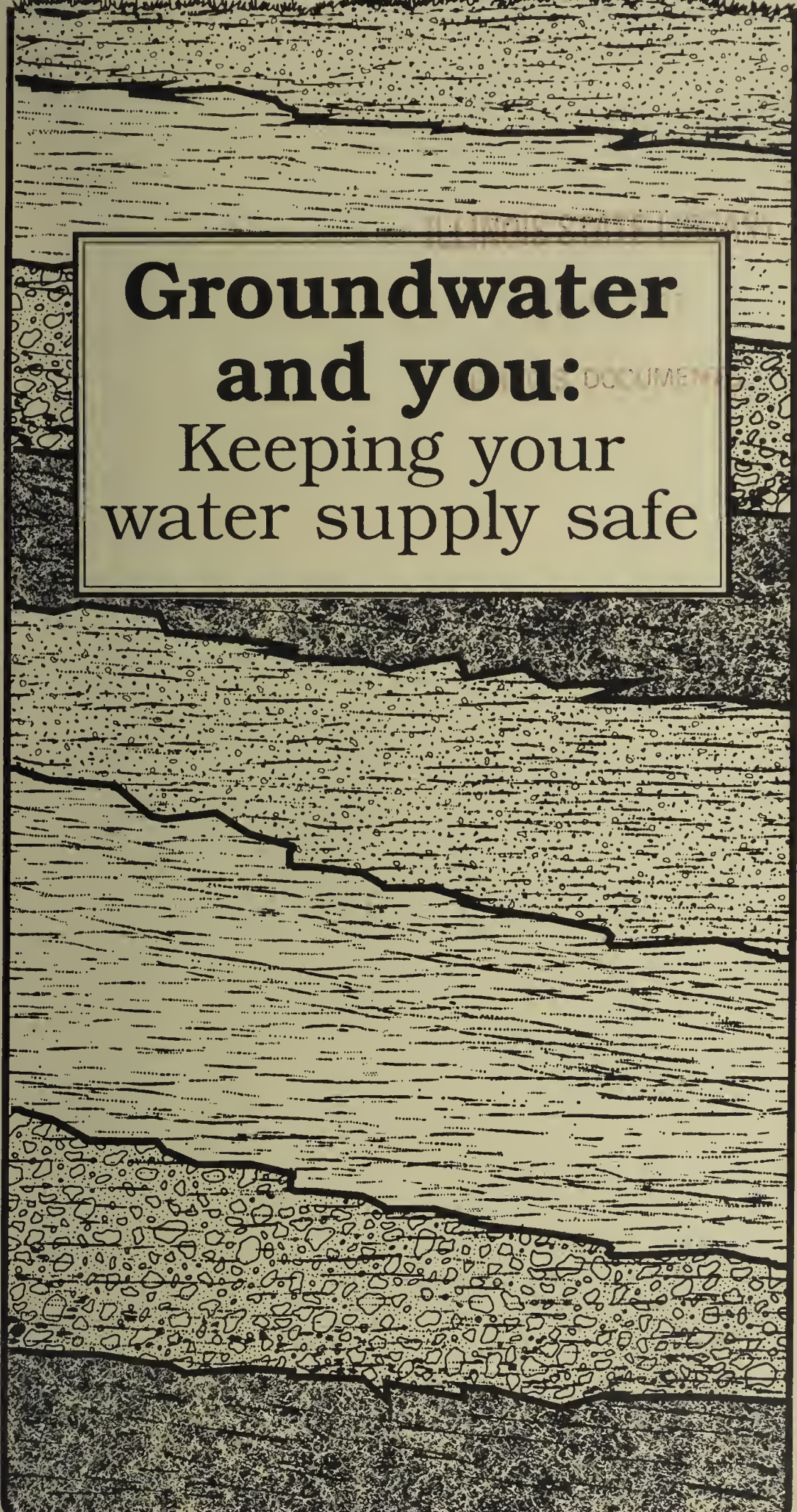


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Groundwater and you:

Keeping your
water supply safe

Beneath the surface of the soil, water slowly seeps through the pores, cracks, and crevices of rocks and sand. When the spaces between the rocks and sand become filled with water, it is called groundwater. If there is enough groundwater in these buried materials to yield a reasonable supply of water to a well or spring, the groundwater supply is called an aquifer.

Experts estimate that 90 percent of rural Illinois residents depend on groundwater drawn from wells as their primary water source.

For many years, we believed groundwater was filtered and cleansed by its slow journey through layers of rocks and sand. Today, we face a grim reality: groundwater is being polluted by our surface activities. When disposed of improperly, hazardous household and farm products that enhance our daily life find their way through layers of rocks, sand, and porous soil and pollute our groundwater. And, once contaminated, groundwater cannot easily be purified.

The threat to our water supply is growing. A 1984 study found bacterial contamination to be the most common problem in rural water supplies. A dramatic rise is occurring in the levels of toxic chemicals found in groundwater.

For our own sakes, and for the sake of future generations, we must safeguard this hidden natural resource, groundwater.



Many daily activities and substances on your farm can pollute groundwater.

A checklist for safe groundwater:

Do you:

- ☐ mix and load chemicals and fertilizers at least 200 feet away from your well, creek or pond?
- ☐ empty water used to rinse herbicide or chemical containers into your spray tank?
- ☐ prevent back-siphoning of contaminated water into your water supply? (For example, an air gap between the water supply hose and the top of your spray tank?)
- ☐ mix and measure all household and farm chemicals accurately to eliminate disposal of excess?
- ☐ delay application of certain products to prevent wash-off or surface runoff if heavy rain is forecast?
- ☐ rinse equipment away from your well?
- ☐ dispose of used motor oil at recycling centers instead of on the ground?
- ☐ return unopened chemicals for a refund?
- ☐ follow directions on labels when using and disposing of pesticide, fertilizer or household chemicals and their containers?
- ☐ soil test every year, including 2 to 3 feet deep, to make sure you aren't over-fertilizing your land?
- ☐ keep soil around the wellhead graded to divert runoff water?
- ☐ avoid spreading or application of manure near your well?
- ☐ avoid use or storage of pesticides, fertilizers or machine shop chemicals (such as degreasers) near your well?
- ☐ have your septic system or cesspool inspected and pumped out on a regular basis?
- ☐ have your water tested routinely for coliform and nitrates?
- ☐ cap abandoned wells and avoid disposal of waste products in unused wells? Uncapped wells can act as routes for pollution.
- ☐ have livestock pasture areas or poultry more than 50 feet from your well? Double the distance if the soil is sandy.
- ☐ have a septic system at least 75 feet from your well? Double the distance if the soil is sandy.
- ☐ use above ground fuel storage tanks?
- ☐ place your farm dump, underground fuel tank, or confinement livestock operation more than 200 feet from your well? Double the space if the soil is sandy.

If you checked all the above, you are protecting your groundwater.



More questions on well construction and vulnerability to help you protect your water supply:

— Do you periodically have your well inspected to determine if the structure (i.e. casing) has deteriorated or if any pollution hazards are located near the well?

— If your well has lead water pipes, has your water been tested for lead?

__ Is your well drilled and more than 50 feet deep? Dug or driven wells usually have little or no casing and if less than 50 feet deep are more sensitive to chemical contamination.

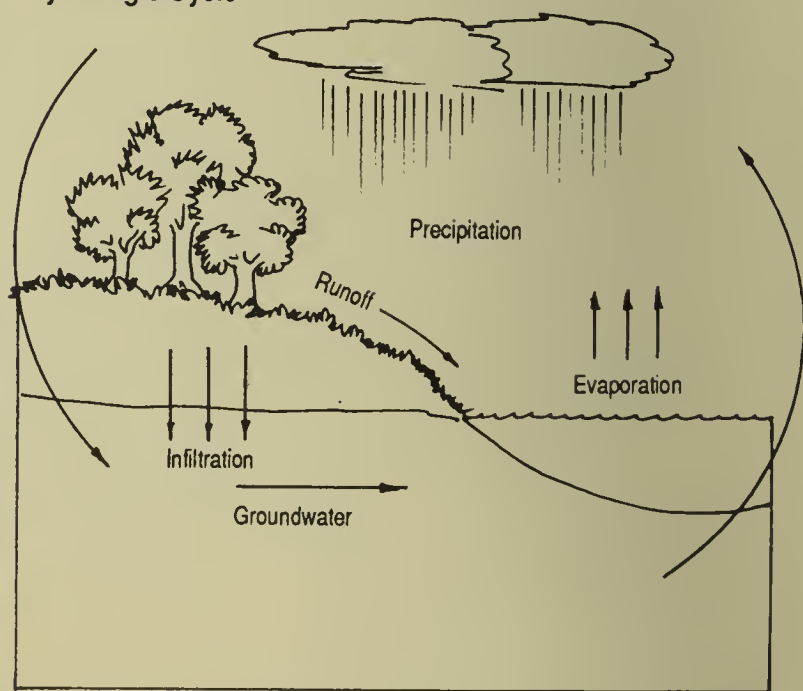
__ If your well has an older submersible pump, have you checked for oil leakage?

Does your well have a secure lid to keep out runoff and small animals?

— If the ground around your well is sandy (versus clay or loam), do you take extra precautions to keep sources of pollution away from your well? Chemicals which enter groundwater can move more rapidly in sandy soils.

If you checked all of the above, you are protecting your groundwater.

Hydrologic Cycle





The combination of potential sources of contamination and well vulnerability increase probability of groundwater pollution.

If you have questions or want more information call your:

County Extension Agent

Soil Conservation Service

County Farm Bureau

Local Water Testing Laboratory

Illinois Department of Agriculture

**Illinois Department of Public Health
(217) 782-6562**

**Illinois Environmental Protection Agency
(217) 782-5562**

If you suspect your water has been contaminated and want your water tested, contact your County Health Department or the Illinois Department of Public Health.





***A Message for Illinois Farm Families From:
Illinois Farm Bureau Women's Committee
Illinois Environmental Protection Agency
Illinois Department of Public Health
Illinois Farm Bureau Governmental Affairs
Division***

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